

REMARKS/ARGUMENTS

Claims 1-44 have been resubmitted. Claims 1, 2, 4-6, 8-14, 16-21, 23, 24, 26-28, 30-36 and 38-43 have been amended.

The drawings were objected to for including a reference character not mentioned in the description. Claims 32-34 were objected to for not being grouped together per MPEP 608.01(m) and 37 C.F.R. 1.75 (g). Claims 1-44 were rejected under 35 U.S.C. Section 112, second paragraph. Claims 13-15 and 35-37 were rejected under 35 U.S.C. 102(e) as being anticipated by Piotrowski U.S. Patent Application Publication No. 2003/0236903. Claims 1-4, 10-12, 23-26 and 32-34 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0236903 (Piotrowski) in view of U.S. Patent No. 5,899,995 (Millier et al.). Claims 5-9, 16-19, 27-31 and 38-41 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0236903 (Piotrowski) in view of U.S. Patent No. 5,899,995 (Millier et al.), in view of U.S. Patent No. 5,790,937 (Gutle) and further in view of U.S. Patent No. 5,907,841 (Sumita). Claims 20-22 and 42-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0236903 (Piotrowski) in view of U.S. Patent No. 5,790,937 (Gutle) and further in view of U.S. Patent No. 5,907,841 (Sumita).

Drawing Objections

The drawings were objected to for including a reference character not mentioned in the description, in particular, detail 10 shown in FIG. 1. Applicant respectfully disagrees and directs the Examiner to page 11 line 4 of Applicants' specification where reference character 10 is mentioned. Withdrawal of the objection to the drawings is respectfully requested.

Claim Objections

Claims 32-34 were objected to for not being grouped together per MPEP 608.01(m) and 37 C.F.R. 1.75 (g). Claim 33 has now been amended so that it depends on claim 32, correcting the basis for this objection. Applicants respectfully request the withdrawal of this objection.

Rejections under 35 U.S.C. section 112, first paragraph

Claims 1-44 were rejected under 35 U.S.C. Section 112, second paragraph as being indefinite for reciting the term "and/or". The claims have now been amended to remove this term.

Claim 33 was rejected for a lack of antecedent basis. Claim 33 has now been amended so that it now depends on claim 32, thus providing the required antecedent. For this reason, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1-44 and claim 33 under 35 U.S.C. 112 second paragraph.

Rejections under 35 U.S.C. 102(e)

Claims 13-15 and 35-37 were rejected under 35 U.S.C. 102(e) as being anticipated by Piotrowski U.S. Patent Application Publication No. 2003/0236903.

Piotrowski discloses a system for structured streaming of an XML document. The system segments an XML document into XML portions according to a particular XML Schema (para. [0008]). This XML Schema is

modified and used to define the priority of XML portions. A user may pre-define the XML Schema to determine which portions have the highest priority (para. [0019]. An XML transmitter 200 encodes and transmits the XML content in such a manner that allows an XML receiver 300 to decode only the prioritized XML portions of the transmitted XML document that are received (para. [0015]). In particular, the XML receiver 300 executes a streaming XML portion process 400 described as follows:

"The streaming XML portion process 400 in steps 410 and 420 extracts the structure (e.g. DTD or XML Schema) information received in an XML portion and determines the corresponding stored prioritized XML Schema in XML receiver 300" (para. 0025].

Thus, in Piotrowski, the receiver 300 extracts the structure information to determine priority.

In contrast, Applicants' invention discloses a system where portions of a structured document are rearranged into a particular sequence based on node priorities before they are transmitted to a receiver. In particular, a node priority presentation means (22 in FIG. 4) sets node priorities on the basis of the importance of an information portion to a user. A node stream generation means (23 in FIG. 4) generates a node stream in which nodes are arranged in a sequence on the basis of node priorities presented by the node priority presentation means. Hence, in Applicants' invention, the nodes of the documents are rearranged in to a prioritized order before they are transmitted.

With regard to Claim 13, the Examiner has asserted that Piotrowski discloses the claim limitation "a node stream formed in such a manner that a node priority is set with respect to each of nodes of a tree-structured document on the basis of the importance of an information portion to be presented from

the node to a receiving-side user while satisfying two conditions: a first condition that the node priority of the node is equal to or lower than that of a node which is an ancestor of that node, and a second condition that if a plurality of nodes of the same priority exist, the nodes necessarily constitute one sub tree...". In particular, the Examiner asserts that these two conditions are taught in Piotrowski at paragraphs [0017], [0008] and [0009]. However, these paragraphs, teach that the "XML document is decomposed and encoded as a collection of XML Schema elements, which are prioritized according to a specific set of parameters". There is no mention of the two conditions recited in claim 13, nor that this prioritization is accomplished according to the two conditions.

The Examiner has also asserted that Piotrowski, at paragraphs [0007] and [0008], discloses the claim limitation that the receiving apparatus receives a signal in which the nodes are "arranged in a sequence on the basis of the node priorities". However, these paragraphs state (in pertinent parts):

"A method and apparatus are disclosed for streaming an XML document/content in a structured manner that allows the receiver to decode portions of an XML document in a prioritized manner. Document models are utilized in converting XML documents into prioritized portions, elements, segments or sub-trees (hereinafter known as "XML portions") that are transmitted according to a predefined scheme."; and "These XML portions are then grouped and or sent to a receiver to decode the most important XML portions of the XML document first"

This teaches that the document is transmitted "according to a predefined scheme" and that a receiver decodes the most important portions first. This does not teach that document nodes are "arranged in a sequence on the basis

of the node priorities" before they are transmitted. That is, transmitting according to a "predefined scheme" and having a receiver "decode the most important portions first", after they are transmitted, is not the same as arranging the nodes on the basis of node priorities before being transmitted. For at least these reasons, Applicants respectfully request reconsideration and withdrawal of the rejection of independent claims 13 as being anticipated by Piotrowski.

Claims 14 and 15 are dependant on claim 13 and should be allowable for the reasons discussed above in connection with claim 13. Further, claim 14 recites that "descendent substitute display information for substitute display on said display" is added to the node stream restored by said receiving means. This is accomplished by using a "reconstruction means" that "adds a substitute structure portion"... "in place of the descendant node relating to the substitute display information ". The result of the addition of the "descendant substitute display information" and the "substitute structure portion" is that more important information may be displayed first and a substitute, such as a series of "X's", will be substituted and displayed in place of the less important information. See, for example, the discussion of the example where the substitute display of a series of "Xs" at page 13, lines 8-30 of applicants specification and Figs. 35 and 37, which show the substituted "Xs" in a depiction of a screen display.

This substitute display has the distinct advantage of permitting the user to view the more important portions of the display first, with the less important portions just displayed as a series of "Xs", instead of waiting for the entire display to be transmitted and displayed, which would take much longer.

There is no substitute display taught by Piotrowski. The paragraphs cited by the Examiner in rejecting this claim, [0009], [0015], [0017], [0018] and

[0023]-[0025], do not disclose any such substitute display, nor do they disclose or suggest any mechanism for creating such a substitute display, as claimed.

Claim 15 is dependant on claim 14 and is allowable for the reasons discussed above with respect to claims 13 and 14. Further, claim 15 recites that the reconstruction means discussed above, "immediately replaces the substitute structured portion relating to the descendant substitute display information under reconstruction with the descendant node when said extraction means extracts the descendant node which substitute display for the descendant node according to the descendant substitute display information is being performed". This feature is not taught in the cited paragraphs of Piotrowski, nor anywhere in this reference. For at least these reasons, Applicants respectfully request reconsideration and withdrawal of the rejection of dependant claims 14 and 15 as being anticipated by Piotrowski.

Rejections under 35 U.S.C. 103(a)

Claims 1-4, 10-12, 23-26 and 32-34 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0236903 (Piotrowski) in view of U.S. Patent No. 5,899,995 (Millier et al.).

Independent claims 1, 10, 23 and 32 all include the limitation that node priority is set while satisfying two conditions (discussed above in connection with claim 13) namely, "a first condition that the node priority of the node is equal to or lower than that of a node which is an ancestor of that node, and a second condition that if a plurality of nodes of the same priority exist, the nodes necessarily constitute one sub-tree...". The Examiner asserts that these two conditions are taught in Piotrowski at paragraphs [0017], [0008] and [0009]. However, these paragraphs, teach that the "XML document is decomposed and

encoded as a collection of XML Schema elements, which are prioritized according to a specific set of parameters". There is no mention of the two conditions recited in claims 1, 10, 23 and 32, nor that a prioritization is accomplished according to the two conditions.

The Examiner has also asserted that Piotrowski, at paragraphs [0007] and [0008], discloses the claim 1, 10 (and in pertinent parts claim 32) limitation of a "node stream generation means ...generating a node stream in which at least one of the nodes and/ or the sub trees are arranged in a sequence on the basis of the node priorities...". However, these paragraphs in Piotrowski teach that the document is transmitted "according to a predefined scheme" and that a receiver decodes the most important portions first. This does not teach that document nodes are "arranged in a sequence on the basis of the node priorities" before they are transmitted. That is, transmitting according to a "predefined scheme" and having a receiver "decode the most important portions first", after they are transmitted, is not the same as arranging the nodes on the basis of node priorities before being transmitted.

Nor does the cited Millier reference, disclose or suggest the above-discussed claim limitations. For at least these reasons, Applicants respectfully request reconsideration and withdrawal of the rejection of independent claims 1, 10, 23 and 32 as being unpatentable over Piotrowski in view of Millier.

Claims 2-4 are dependant on claim 1 and should be allowable for the reasons discussed above in connection with claim 1. Further, claims 2, 3, 11, 24, 25, and 33 recite (essentially) a "descendent substitute display information addition means ... in which descendant substitute display information is added". This is accomplished by using a "reconstruction means" that "adds a substitute structure portion"... "in place of the descendant node relating to the substitute

display information ". The result of the addition of the "descendant substitute display information" and the "substitute structure portion" is that more important information may be displayed first and a substitute, such as a series of "X's", will be substituted and displayed in place of the less important information. See, for example, the discussion of the example where the substitute display of a series of "Xs" at page 13, lines 8-30 of applicants specification and FIGs. 35 and 37, which show the substituted "Xs" in a depiction of a screen display.

This substitute display has the distinct advantage of permitting the user to view the more important portions of the display first, with the less important portions just displayed as a series of "Xs", instead of waiting for the entire display to be transmitted and displayed, which would take much longer.

There is no substitute display taught by Piotrowski. The paragraphs cited by the Examiner in rejecting this claim, [0009], [0015], [0017], [0018] and [0023]-[0025], do not disclose any such substitute display, nor do they disclose or suggest any mechanism for creating such a substitute display, as claimed.

Claims 4, 26 and 34 are dependant on independent claims 1, 23 and 32 respectively and are allowable for at least the reasons discussed above with respect to the base claims. For at least these reasons, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1-4, 23-26 and 32-34 as being unpatentable over Piotrowski in view of Millier

Claims 5-9, 16-19, 27-31 and 38-41 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0236903 (Piotrowski) in view of U.S. Patent No. 5,899,995 (Millier et al.), in view of U.S. Patent No. 5,790,937 (Gutle) and further in view of U.S. Patent No. 5,907,841 (Sumita).

Independent claims 5, 16, 27 and 38 all essentially include the limitation that node priority is set while satisfying two conditions namely, "a first condition that the node priority of the node is equal to or lower than that of a node which is an ancestor of that node, and a second condition that if a plurality of nodes of the same priority exist, the nodes necessarily constitute one sub-tree...". The Examiner asserts that these two conditions are taught in Piotrowski at paragraphs [0017], [0008] and [0009]. However, these paragraphs, teach that the "XML document is decomposed and encoded as a collection of XML Schema elements, which are prioritized according to a specific set of parameters". There is no mention of the two conditions recited in claims 5, 16, 27 and 38, nor that a prioritization is accomplished according to the two conditions.

The Examiner has also asserted that Piotrowski, at paragraphs [0007], [0008] and [0022], discloses the claim 5, 16, 27 and 38 limitation of a multiplexed stream generation means or step in which "tree-structured documents are arranged being placed in the multiplexed stream according to the inter-document priorities...". However, these paragraphs in Piotrowski teach that the document is transmitted "according to a predefined scheme" and that a receiver decodes the most important portions first. This does not teach that document nodes are "placed in the multiplexed stream according to the inter-document priorities" before they are transmitted. That is, transmitting according to a "predefined scheme" and having a receiver "decode the most important portions first", after they are transmitted, is not the same as arranging the nodes on the basis of inter-document priorities before being transmitted.

Nor does the cited Millier, Gutle or Sumita references disclose or suggest the above-discussed claim limitations. For at least these reasons, Applicants

respectfully request reconsideration and withdrawal of the rejection of independent claims 5, 16, 27 and 38 as being unpatentable over Piotrowski in view of Millier, Gutle and Sumita.

Claims 6, 7, 17, 28, 29 and 39 are dependent on the above discussed independent claims 5, 16, 27 and 38 and are allowable for the reasons discussed above. Further claims 6, 7, 17, 28, 29 and 39 recite (essentially) a "descendent substitute display information addition means ... in which descendant substitute display information is added". This is accomplished by using a "reconstruction means" that "adds a substitute structure portion"... "in place of the descendant node relating to the substitute display information ". The result of the addition of the "descendant substitute display information" and the "substitute structure portion" is that more important information may be displayed first and a substitute, such as a series of "X's", will be substituted and displayed in place of the less important information. See, for example, the discussion of the example where the substitute display of a series of "Xs" at page 13, lines 8-30 of applicants specification and FIGs. 35 and 37, which show the substituted "Xs" in a depiction of a screen display.

This substitute display has the distinct advantage of permitting the user to view the more important portions of the display first, with the less important portions just displayed as a series of "Xs", instead of waiting for the entire display to be transmitted and displayed, which would take much longer.

There is no substitute display taught by Piotrowski. The paragraphs cited by the Examiner in rejecting this claim, [0009], [0015], [0017], [0018] and [0023]-[0025], do not disclose any such substitute display, nor do they disclose or suggest any mechanism for creating such a substitute display, as claimed.

Claims 8, 9, 18, 19, 30, 31, 40 and 41 are dependant on one of independent claims 5, 16, 27 and 38 respectively and are allowable for at least the reasons discussed above with respect to the base claims. For at least these reasons, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 5-9, 16-19, 27-31 and 38-41 as being unpatentable over Piotrowski in view of Millier, Gutle and Sumita.

Claims 20-22 and 42-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0236903 (Piotrowski) in view of U.S. Patent No. 5,790,937 (Gutle) and further in view of U.S. Patent No. 5,907,841 (Sumita).

Independent claims 20 and 42 essentially include the limitation that node priority is set while satisfying two conditions namely, "a first condition that the node priority of the node is equal to or lower than that of a node which is an ancestor of that node, and a second condition that if a plurality of nodes of the same priority exist, the nodes necessarily constitute one sub-tree...". The Examiner asserts that these two conditions are taught in Piotrowski at paragraphs [0017], [0008] and [0009]. However, these paragraphs, teach that the "XML document is decomposed and encoded as a collection of XML Schema elements, which are prioritized according to a specific set of parameters". There is no mention of the two conditions recited in claims 20 and 42, nor that a prioritization is accomplished according to the two conditions.

The Examiner has also asserted that Piotrowski, at paragraphs [0007], [0008] and [0022], discloses the claim 20 and 42 limitation of a multiplexed stream generation means or step in which "tree-structured documents are arranged being placed in the multiplexed stream according to the inter-document priorities...". However, these paragraphs in Piotrowski teach that

the document is transmitted "according to a predefined scheme" and that a receiver decodes the most important portions first. This does not teach that document nodes are "placed in the multiplexed stream according to the inter-document priorities" before they are transmitted. That is, transmitting according to a "predefined scheme" and having a receiver "decode the most important portions first", after they are transmitted, is not the same as arranging the nodes on the basis of inter-document priorities before being transmitted.

Nor does the cited Gutle or Sumita references disclose or suggest the above-discussed claim limitations. For at least these reasons, Applicants respectfully request reconsideration and withdrawal of the rejection of independent claims 20 and 42 as being unpatentable over Piotrowski in view of Gutle and Sumita.

Claims 21, 22 43 and 44 are dependent on at least one of the above discussed independent claims 20 and 42 and are allowable for the reasons discussed above. Further claims 21, 22, 43 and 44 recite (essentially) a "descendent substitute display information addition means ... in which descendant substitute display information is added". This is accomplished by using a "reconstruction means" that "adds a substitute structure portion"... "in place of the descendant node relating to the substitute display information ". The result of the addition of the "descendant substitute display information" and the "substitute structure portion" is that more important information may be displayed first and a substitute, such as a series of "X"s", will be substituted and displayed in place of the less important information. See, for example, the discussion of the example where the substitute display of a series of "Xs" at page 13, lines 8-30 of applicants specification and FIGs. 35 and 37, which show the substituted "Xs" in a depiction of a screen display.

This substitute display has the distinct advantage of permitting the user to view the more important portions of the display first, with the less important portions just displayed as a series of "Xs", instead of waiting for the entire display to be transmitted and displayed, which would take much longer.

There is no substitute display taught by Piotrowski, Gutle or Sumita. The paragraphs cited by the Examiner in rejecting this claim, [0009], [0015], [0017], [0018] and [0023]-[0025], do not disclose any such substitute display, nor do they disclose or suggest any mechanism for creating such a substitute display, as claimed.

For at least these reasons, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 20-22 and 42-44 as being unpatentable over Piotrowski in view of Gutle and Sumita.

CONCLUSION

Reconsideration and withdrawal of the rejections with respect to Claims 1-44 is requested. Applicants submit that the claims are now in condition for allowance.

In the event the examiner wishes to discuss any aspect of this response, please contact the attorney at the telephone number identified below.

The Commissioner is hereby authorized to charge payment of any fees associated with this communication or credit any overpayment to Deposit Account No. 090441.

Respectfully submitted,

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